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LEADING ARTICLES

A NEW METHOD OF OPERATING FOR VENTRAL HERNIA.

J. F. MENESTRINA, M. D.

ST. LOUIS.

THE relative frequency of ventral hernia, following abdominal operations, is a subject of vast importance. Its avoidance is a study that taxes the ingenuity of the modern operator. It cannot always be said that faulty technique in suturing after abdominal incision is responsible for this condition in clean cases. We, of course, very readily understand how it occurs in cases where drainage is employed, namely, by the separation of the fascial sheaths of the recti muscles, the drain preventing cohesion.

Many operators today select the rectus abdominalis route in place of the median incision, and, while this is open to objections, still the absolute certainty of no hernia following in its wake finds great favor with them. Others while following the linea alba, make such small incisions and take such great care in suturing that seldom hernia follows. The operators who can work in such a small incision are exceedingly few, and have acquired such dexterity and skill by frequent practice. When ventral hernia occurs, however, in the case of median incision operations, the question arises, should a patient be made to wear for life an abdominal support, or should we try more radical means by operative repair? Whether small or large it will give great discomfort, to say the least, and limit the usefulness of the afflicted person. The small becomes in time large, and the large becomes enormous.

Omental and intestinal adhesions are not infrequent occurrences, and while strictly speaking, such a condition is not a great risk to life, still a number of cases are on record of incarceration, or even strangulation and death. Kelly reports such a case in his second volume, Chapter XXXVII, and there a number of others in the literature.

The diagnosis is easy. If the patient is examined while lying in the dorsal position, with thighs flexed and knees drawn up, the hernial contents usually reduces itself unless omental or intestinal adhesions prevent. By pushing the hand down a ring in the wall is plainly felt with borders well defined. Every recess of the abdominal cavity can usually be made out, as the thin layer of skin, aponeurosis and peritoneum offers no resistance, having undergone an atrophic condition by the constant pressure from within.

Usually the borders of the ring are very sharp and well defined. Now if fingers or hands are pushed down in this ring and the patient be directed to raise to a sitting posture, the two recti muscles will be found to forcibly contract and grasp the fingers or hand very firmly. It is this natural phenomenon on the part of the muscles which gave me the idea of repairing such hernias by the here described operation.

On standing the patient and withdrawing the hand, the contents of the hernia will again come down in the sac. There have been many plans devised for their repair by Kelly, Mayo, Kocher and other originators that are worthy of consideration. The method of reinforcement by wire filigree finds strong advocates in Bartlett and others, and no doubt is very useful in selected cases, but its general use is to be condemned on the ground explained below.

The method employed by Kelly of suturing the recti together with mattress sutures, after slitting the thick fascial covering of the border of the hernial ring, is one to be given the preference, as it is ingenious, easy of execution, practical and usually successful. The same objections, however, of the use of the filigree holds good here as a non-absorbable

material is used, either silver netting or silver wire. While we hear so little of the failures in our surgical reports, it must be admitted that where Halsted and others employed silver wire as suture material in radical cure for hernia, in course of time it became necessary to remove the same. In ventral hernia, especially such material should never be used. Personally I admit the mistake of using silver wire in two cases.

In view of the above objections, of late I employed a method that proved in my hands very satisfactory. No such material as silver wire netting or silver wire is required; only chromicized catgut is used, and very little of that.

In order to attain the best results in these cases it is best to divide the radical cure of the ventral hernia in two stages—the pre-operative and the operative. No doubt those who come in contact and operate in these cases have noticed the deplorable state of the abdominal wall, either enormous adiposed, and flabby, or abnormally thin, and almost in an atrophic condition. In these cases in my experience abdominal massage and gymnastics, as advocated by Zabludowski of the Royal University of Berlin, should be used in the pre-operative state. Ventral hernias, unlike other conditions, can wait usually one month or two. During this time the abdominal wall can be fortified in a most admirable way. Briefly, the Zabludowski method consists in having patient placed in a recumbent position, thigh flexed. The palm of the hand is placed on the abdomen; a circular downward vibratory kneading sweep is started at a given point. Circle is gradually increased spirally until six inches of the abdomen is covered by three or four strokes. The circulatory stroke is then reversed.

Starting at the periphery of the circle gradually returning to original starting point. The hand passes from one to another starting point, and the above is kept up until the entire abdomen is gone over very thoroughly. Next step is the abdominal breathing. Patient is made to inhale through the nose, and as the abdomen distends gentle pressure is made downward by the attendant, gradually increasing it. Assist exhalation also gently. This exercise is very tiresome to the patient, and it should not be repeated oftener than twelve times twice daily. The wonderful stimulus upon circulation (therefore nutritious) cannot be estimated, if not tried and all cases of excessive adiposity of the abdomen should be taught is use. Last, but not least, the abdominal gymnastics. From the recumbent posture patient, lightly aided, is made to assume a sitting one, and assisted back to recumbent. This is repeated for twelve times twice daily. The action is to develop tone to the recti and oblique muscles —a very necessary requisite for the successful repair of ventral hernias. It is well to tone up also the general condition by reconstructive tonics, good hygienic condition, bathing, exercise, saline laxatives, etc.; in other words, place patient in the very best possible physical condition. As stated above, these are a class of cases that can wait, and easily go through a preparatory course. The time spent is certainly well rewarded.

Having now finished the preparatory state, patient is made ready in the usual manner as in coeliotomy.

The procedure of the operation is briefly as follows: At the thinnest portion of the sac, a small incision is made, penetrating the peritoneum. Great care must be exercised lest an adherent loop of intestine or omentum be present and be injured by this incision. The finger glides quickly over the peritoneal surface. If no adhesions are found, the opening is enlarged to the full length of the hernial sac. The whole sac comprising skin, aponeurosis and peritoneum, is grasped on each side and with a quick stroke of the knife the entire sac is cut through to within an inch of the sharp border of the rectus. Skin is dissected back sufficiently far to expose the sheath of the recti. The aponeurosis and peritoneum which have been already incised within an inch of the rectus are sutured together with ten days' chromicized catgut, size 00 (Van Horn), double thread continuous suture, making the first wall in the repair of the hernia. The next wall is obtained by splitting the sheath of either rectus along a line between its inner third or outer two-thirds, the longitudinal incision being as long as the hernial wall; a cross incision through the sheath is made at the top and bottom of the longitudinal incision extending to either margin of the muscle; the two flaps of the sheath are now dissected back from the muscle leaving it entirely exposed and in plain view. The inner portions, the narrow flaps, of the sheaths are now folded inwards over the already closed aponeurosis, they are brought to a smooth even position, one overlapping the other and sutured with the same 00 catgut. This constitutes the second floor. Now the denuded recti muscles are brought together, their denuded surfaces being apposed and transfixed with mattress sutures of the same 00 catgut the entire length of the sac. This is firmly sutured making it practically one muscle, and the third covering. The outer flaps of the sheaths of the recti are now brought together, the same overlapping method as was used

with the inner being employed, and through this we have the fourth covering. Finally the skin and subcutaneous fascia are united with silk-worm gut, making the fifth and last covering.

At the beginning extreme tension of the tissue is present, with a protrusion caused by the bulging of the united recti. During the first twenty-four hours I employ as a precautionary measure a temporary retention suture until danger of vomiting from the anesthetic is passed; a large hare-lip needle or two with figure-of-eight suture being employed for the purpose. After this danger is past the suture is removed by withdrawing the needle.

It is astonishing that even though the tension is extreme and the bulging in the median line consequent to the suturing together of the recti great, how satisfactory is the gradual compensation by relaxation which follows within a short time after the operation.

I have employed this method in several cases with the best possible results, two cases having gone through with subsequent pregnancy without trouble, no return of the hernia resulting. It is also remarkable to note that no impairment of the function of the abdominal walls takes place if massage precedes and follows the operation. The recti, now united into one muscle, contract simultaneously. The entire operation is quickly performed, easy of execution and the results are strikingly successful.

3409-3411 Washington Ave.

COMMON COLDS.—Atkinson (Boston Med. Journal) gives a very common combination for the cure of this common, but uncommonly hard to cure complaint: Spiriti ammoniae aromaticae 30.00; sp. ether nitrosi 30.00. M. S.—One teaspoonful in an ounce of water, to be repeated in two hours, then continued every four hours. If mucus is quite thick, snuff with cocaine 1.00, menthol 2.00, acid boracic 100.00.

BEE-STING AS A CURE FOR RHEUMATISM.—To demonstrate the good effects of bee-sting in the treatment of rheumatism, an enthusiastic believer at Middletown, Pa., permitted himself to be stung recently by eighteen Cyprian bees before the Pennsylvania State Beekeepers' Association at the Department of Public Instruction at Harrisburg. The treatment was applied by the State Zoologist, from whose apiary the bees were produced, and he was assisted by a representative of the State Health Department.

ABSCESSES OF THE RECTAL REGION.*

ROLLIN H. BARNES, M. D.

ST. LOUIS.

ABSCESSES found in this region are similar to those found in other parts of the body, except that they have a greater tendency to become chronic; and then we do not call them abscesses but fistulas. This tendency is due to the character of the tissues and the arrangement of these parts.

For convenience we divide them into several classifications: as to location, submucous, submuco-cutaneous, subtegumentary, and submuscular (ischio-rectal, retro-rectal, and superior-pelvi-rectal); as to cause, simple and specific.

The frequency of abscesses in this region is more common than the average practitioner realizes. Authorities differ widely, and from my experience I have found them the most frequent rectal disease. I include all fistulas that I have treated for the reason that they were all abscesses originally.

The etiology of abscesses of this region may be from direct infection or indirect through the lymphatics, but there is no question that the infection of some pus producing organism is necessary. There are predisposing causes, such as may reduce the resistance of the part. Traumatism no doubt plays an important part. Constitutional disease is often present and has its effect.

The symptoms are not peculiar from those of abscess of other parts of the body.

The important complication, which is really a sequel, is fistula.

The diagnosis is generally easy if a careful examination is made.

My object in writing this paper is to call your attention to the treatment of these cases.

Too many rectal abscesses result in fistula. This I believe to be to the discredit of the medical profession. There was a time when the surgeon was satisfied, if the patient lived, and an abscess resulted in a chronic discharge, but not at this late date. Why should we be so easily satisfied in the rectal region? Few cases should ever terminate in fistula if properly treated. Where I have seen abscesses before they have opened (before they became fistulas) I have been able to bring about resolution, except when tubercular. The percentage of abscesses resulting in fistula should be small, except when tubercular, and some of these will heal under proper treatment.

I will attempt to set forth some of the reasons why so many of these abscesses re-

*Read before the St. Louis Medical Society, September 29, 1906.

sult in fistula, and call attention to a few important points in treatment that are often neglected.

I do not want to condemn the general practitioner too severely, but it is often his fault that fistula results. First, because of his instruction to the laity in regard to rectal diseases in general. Second, the technique used in their treatment. Third, carelessness.

One great cause is the prescribing for rectal diseases without a thorough examination, and without making a correct diagnosis. Another, delay in making an examination, putting it off from time to time, apparently hoping the case may recover; causes as many bad results. Such are greatly to be condemned, there being no legitimate excuse, for the only excuse can be that rectal cases are distasteful to him, or that he is indifferent.

The common use of poultices and local applications for "drawing" purpose is another cause of fistula. As soon as the diagnosis can be made the abscess should be incised and drained. Again, the manner in which the incision is made. The correct way varies as to the location of the abscess. Simply sticking a knife into an abscess and getting pus is not sufficient. Thorough drainage is the object. Senn's general statement in "Principles of Surgery" when speaking of mucous abscesses, "the incisions need never be more than an inch in length" does not apply to this region. The rule is to make the incision as long as the greatest width of the abscess cavity. The reason for this is that pockets are apt to result if a shorter incision is made, because the bony structures in this part keep the walls of the abscess from collapsing together as they do in other parts. Again, do not neglect to thoroughly break up the dividing tissues of the abscess cavity. The finger is the best instrument to use.

The after treatment is the most important, and is often neglected. How often you see an abscess packed with gauze and the physician wonders why the wound does not drain and the cavity does not heal. "Packed," commonly used in medical literature, is misleading and should never be used in connection with drainage. The proper way is to lay the gauze, loosely, from the deepest portion to the outside, that is unfolded, straight. I prefer tube drainage where the abscess is of sufficient size. The tube should contain numerous openings. Two tubes are the best.

Put your patients to bed.

Do not use the aspirating needle or probe in making a diagnosis. Better dissect carefully down if abscess is suspected. Do not if avoidable incise the abscess through the rectal mucous membrane, but rather through the skin surrounding the anus and at least three-eighths of an inch from the anus and outside of the sphincter muscle. Generally puncture of the rectal wall means fistula. The submucous abscess is the exception, and here it is necessary to puncture the mucous membrane.

I believe the usual cause of an abscess becoming a fistula is carelessness. Take more interest in these cases and remember the greatest object of the profession is to relieve suffering, and nowhere will you be able to do so much as in the rectal region.

THE CHLORIDE OF SODIUM INHIBITION FALLACY IN THE THERAPEUTICS OF EPILEPSY.*

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ST. LOUIS, MO.

Editor the Alienist and Neurologist.

WE are hearing much of late through contributions to the medical press of the remarkable value of inhibiting the use of common salt in the dietary of epileptics, claiming that its withdrawal makes less bromides necessary and diminishes the frequency of the paroxysms.

We have before us in the medical press betimes many other equally as illy considered therapeutic suggestions which prevail for a brief season, as potent in the management of this often intractable disease of the brain before being passed by the sober second thought, and further clinical experience into the limbo of innocuous desuetude.

The reason given for inhibiting salt in the dietary is that it has an alkaline base like the bromides, and consequently when kept out of the system less of the bromides are required for their specific effect. Cases are observed, and if a diminution of the paroxysms of epilepsy appear under chloride of sodium withdrawal as compared with appearances when the salt has not been withheld, the conclusion is reached that abstention from table salt has brought about the result.

Now, in correction of this erroneous therapeutic conclusion, it ought to be remembered and considered that clinical appearances in epilepsy are irregular and deceptive; a pa-

*Alfred Gordon, in the New York Medical Journal, concludes concerning the salt-free treatment of epilepsy that the suppression of alimentary salt in the diet of epileptics has a favorable effect on epileptic seizures inasmuch as it reduces their frequency and severity. It is of the same advantage in the treatment of epilepsy as the strict observance of dietetic and hygienic rules. Both factors combined aid considerably in controlling and reducing the seizures. Reduction or complete removal of sodium chlorid from the diet gives better results when bromids are taken than while they are not taken. Dechlorization is certainly not a specific for epilepsy, but it adds a new element to our meager neurological armamentarium. It also adds value to our old conceptions of epilepsy as a disease in which faulty chemical processes play an enormous role.—CLEVELAND MED. JOUR.

tient will have a series of brief periodically occurring paroxysms for a while, for a while they will recur irregularly and be manifested at one time or several, or many times in petit mal seizures, and at another or other times in regular grand mal attacks, in ordinary or usual cases, and with or without salt taking, as the writer has over and over again observed, both under and without abstention from salt in the treatment, especially where the repressive and brain and blood reconstructive treatment is inadequate.

Conditions of the organism and movement and states of the bowels and contents, and liver, and aseptic cleanliness or otherwise of the intestinal tract, states of brain irritation and brain cell exhaustion, and impressibility to autotoxine influences, have much to do with eplieptic or epileptoid paroxysmal recurrences.

Chloride of sodium is a salutary condiment and an efficient aseptic ingredient when not excessively taken, both for man and animals. Animals instinctively and unconsciously as to its benefits, seek salt for its satisfying, salutary effect on the appetite and to them unconscious influence on their nutrition and blood preservation. Every state where healthy animals abound has its salt lick. Our own Boone-Lick road obtained its name from the trail of the deer Daniel Boone followed to the salt licks they sought in the northern part of Missouri.

It is always a fallacy in medical practice to interdict beyond absolute necessity, accustomed dietary tastes, as in the prohibition of salt to epileptics and even, as I believe, the entire inhibition of sugar in diabetes and albumen in Bright's disease, having seen both morbid states disappear, and in several cases general health restored without inhibiting either from the diet and remain so for several decades, as one case of each treated in the middle eighties and in apparent good health today attest, though glycosuria and albuminuria still persist.

The habit of liver or kidney, or pancreas does not always resume absolutely normal function after other functional disturbances associated therewith have become healthy. They do not return entirely to the normal, especially in neurotic individuals who are the kind that now come mostly under the writer's care.

There is a potent reason for allowing the epileptic to have common salt with his dietary, especially in moderate appetite satisfying quantities, as well as meat once a day, though much strong meat seems to promote paroxysmal frequency of recurrence, and that is the psychic benefit of conforming to gastronomic habit craving and gustatory custom and its consequent mental satisfaction, a point of view, from the side of the patient's welfare, too much overlooked or too ruthlessly disregarded by too many otherwise clever medical practitioners.

We should consider the patient in his mental relations to his organism, and the appetites and habits by which he ministers thereto in a practical light, and so far as his sanitary welfare will permit in our therapeutics.

The man and his psychic needs should be considered as well as the special disease we are endeavoring to master. Consider the whole territory, and not alone the spot specially involved in disease.

I am rather inclined from my personal experience to regard absolute dichlorinization as a harm rather than a benefit in some cases of epilepsia and epileptoid.

Typhoid Fever in Pittsburg.—More than 7,000 cases of typhoid fever were reported in Allegheny and Pittsburg during 1906, with more than five hundred deaths. The water supply was said to be impure.

Looking Out for the Future. — A young member of a Sunday-school was soliciting recruits to her class, and called upon a newly married couple who had moved near her home. After a few pleasant remarks of a general character, she said:

"I am trying to get new scholars for our Sunday-school. Will you send your children to our school?"

She was much disappointed when told that the lady had none, but in a moment her face brightened and she asked:

"Will you send them when you do have them?"—February Lippincott's.

Suicide in Vienna.—This centre of medical study still retains an unenviable prominence among the capitals of Europe in the records of suicides. In the year which has just ended 425 persons—313 men and 112 women—committed suicide, while 707 men and women attempted unsuccessfully to do so. The victims were of all ages, ranging from an old man of eighty-seven to a little girl of eight years. Sickness was the motive alleged in one hundred cases, unhappy love affairs in sixty-three, family strife twenty-three, satiety of life thirty-three, and poverty thirty-one. Twelve women and one hundred and eighteen men shot themselves, nineteen men and thirty-two women took poison, while ten men and twenty-eight women threw themselves from top story windows, a form of suicide common in Vienna.—Med. Record.

SELECTED ARTICLE

HOW FAR DO HOMEOPATHIC AND OTHER PHYSICIANS AGREE, AND HOW CAN THEY AGREE? *

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A NEW generation has grown up since the bitterest controversies were waged between the two main secrets of our profession in this country. With this growth has come the disappearance of some of the grounds of difference. Personal antagonism has largely disappeared. I suppose no homeopath now receives from members of our school any of the social avoidance or arrogant disdain which I am told used to be meted out by the past generation. We have learned that a group of homeopaths are very much like any other group of physicians. In your school, as in our school, there are some fools, some fanatics and some knaves, but in your school, as in ours, there are those who are intelligent, high-minded and eager for the truth wherever found.

We have begun to meet together for discussion both at the bedside and in scientific societies like this. We consult together and we study together. These are great gains attained by the growth of a spirit of tolerance and of truth-seeking on both sides. I shall not try to estimate which of the sects has changed most. I am quite prepared to believe that we have been more in the wrong than you, and that we have receded from more false positions than you have. But I am concerned more with the result than with the stages and processes by which it was attained; more with the question of "Where are we now?" than with the route by which we have arrived here. I am not interested in inquiring who is to blame. If you say that we, the old school men, are greatly to blame, I will cheerfully admit it, and will search my conduct for evidence of injustice or prejudice still remaining —but my chief interest is with the present, not the past; with an attempt to get together now, rather than with an inquiry into the causes and delinquencies that have kept us apart hitherto.

I propose, therefore, to begin with a recapitulation of the points of agreement gained so far, and then to suggest some items of work and practice in which I hope we may agree still further.

I. We agree, first of all, in those fundamental sciences on which the practice of medicine is based—physics, chemistry, biology, anatomy, and physiology, gross and microscopic, normal and pathological. This agreement is nothing new, but its consequences have not, I think, been fully recognized. For if we agree so far, we must also agree in all that can be strictly and legitimately deduced from the data of the fundamental sciences.

In so far as diagnosis, prognosis, or treatment are strict and logical applications of the anatomical or physiological facts of the case in hand, there can be no difference of opinion between our schools. "In so far" I say, and I am very well aware that is not very far. Still, some examples are obvious. Physical, chemical and biological diangosis, for example, are logical applications of the principles of physics, chemistry, biology, to the known data of anatomy and physiology. Hence it comes that on questions of physical, chemical and biological diagnosis we all agree nowadays.

I do not know whether this agreement has always existed, but my impression is that diagnosis is one of the fields in which your schools and ours have been getting together more and more in the last ten years. This is a very great gain and presages still further agreements in the near future.

II. Surgery is another example of a branch of the physician's art which is based directly on anatomy and physiology. Because the facts of anatomy and physiology are facts for us all alike—we can and do agree on surgery. This, again, is especially true of late years and in this country. I find in some books by English homeopathic writers a spirit of hostility to surgery quite foreign to the attitude of members of your society in this vicinity, and I am told that homeopaths are having their cases of appendicitis with abscess operated on earlier nowadays than was the custom ten years ago.

III. Hygiene and prophylaxis exemplify still further the extension of our basis of agreement as we apply further and further the principles of the fundamental sciences which all educated physicians alike acknowledge today. Hygiene and prophylaxis are simply the applications of bacteriology and physiology to the problem of keeping well. The isolation of infectious disease, the destruction of the excreta of the typhoid and the sputa of the tuberculous patient are typical of the many important measures for protecting the public health in which there is no longer any disagreement between us. Dietetics, physical exercise and the full use of our neglected birthright — fresh air — are

* Read before the Boston Homeopathic Medical Society, November 1, 1906, and reprinted in full from The New England Medical Magazine.

taught and practiced by both schools alike, because they are deductions from the data of physiology.

Whenever the treatment of a disease consists essentially in diet and good hygiene—as for example in phthisis—we find no considerable difference in the practice of Homeopaths and Old School physicians.

IV. Wherever asepsis or antisepsis is demanded, there is no difference between us. Surgeons differ, of course, as to the value of particular methods of sterilizing hands, instruments, dressings, and the field of operation, but there is no distinctive old school view or homeopathic view in such matters.

So it is in diseased conditions where local treatment is indicated. Local diseases of the skin, of the mouth, and upper respiratory passages, of the urethra, bladder, rectum, and female genitals are treated, I take it, by both schools on the same essential principles.

Whenever chemical or physiological antidotes are demanded as, for example, in poisoning cases and in the neutralization of acid by alkali, we find all well educated physicians of both schools in substantial agreement.

Mechanical therapeutics includes surgery, the application of orthopedic and other forms of apparatus, massage, manipulation, vibration, exercise, active and passive; do we not wholly agree in this branch of treatment?

I do not know whether Bier's method of treating joint diseases by the production of active hyperemia through heat, or of passive hyperemia by bandaging, is properly to be described as homeopathic, but whether it is homeopathic or not, it is, I suppose, as acceptable to us all, because it rests on biology and physics, not on pharmacology.

Heat, cold, counter-irritation, electricity, are applied by both schools alike. Radiotherapeutics is, I believe, considered a striking example of the homeopathic principle. If so, it shows the sprouting of homeopathic methods within the old school.

My impression is that hydrotherapeutics and conscious psychotherapeutics are used more extensively by our school than by yours, but this indicates no difference in principle between us—for the good offices of water and mental influence are not the property of any school, and all physicians are sure to avail themselves sooner or later of any usefulness that there is in these methods.

The beneficial effects of good nursing are not subjects for controversy, and I suppose that outside the giving of medicine there is no difference between a Homeopathic and an Old School nurse.

There remains two types of therapeutics regarding the homeopathic view of which I must ask you to enlighten me—I allude to vaccination and to serum therapeutics. There are men in both schools who refuse to vaccinate or to give antitoxin in diphtheria.

Are such persons relatively more numerous with you than they are with us I must ask you to answer the question for me, but however, this mathematic problem may be settled, it seems to be the fact that there is no orthodox opinion among homeopaths against the use of vaccination and antitoxic sera.

The use of tuberculin is a form of vaccination which illustrates better than any example known to me the approval of homeopathic principles in our school. Tuberculin is, of course, not an antitoxin, but a toxin, and its therapeutic use is a form of vaccination. The poison of tuberculosis which can produce some of the symptoms of tuberculosis is here applied in small doses for the cure of tuberculosis through the production of immunity, or resisting power in the tissues. Surely, this is a case of "similia similibus curantur," as homeopathic writers have pointed out. The use of bacterial vaccination in infectious diseases recently produced by A. E. Wright is distinctly homeopathic.

But the revival of tuberculin therapy within the past ten years (after its abandonment in 1890) illustrates the victory of another homeopathic doctrine within our school. I mean the doctrine of the occasional utility of very minute doses. No one in this country has had so much experience with tuberculosis as Trudeau of Saranac Lake. No one has tested so critically and cautiously the merits and demerits of this remedy. As a result of his fifteen years' experience of its use he published last August an account of his own methods, and in a recent letter to my friend, Dr. John B. Hawes, Jr., he has amplified and reiterated his statements in a most interesting way.

What does he use? Not the 10 milligrams often employed in the early nineties—not even the 1 milligram or ½ milligram recommended later. At present he begins his treatment in febrile cases with 1-10,000th of a milligram and in febrile cases with a 1-100,000th of a milligram. This 1-100,000th of milligram, when injected under the skin in a centimetre of water and absorbed into the circulation becomes diluted about 5.000,000 times by the body fluids. Hence we imagine the original milligram of tuberculin acts in a dilution of 1-500,000,000,000. What fixes this dose? Precisely the homeopathic principle, namely, to produce a definite good effect without any observable ill effects.

Of course I do not not mean to imply that we have already reached an agreement as to the proper dosage of all, or even of very

many remedies. But we have now observed the occasional utility of very minute doses, and you have long since admitted the occasional benefit of very sizable doses, in principle, therefore, we already agree. It remains to work out the multitudinous details of the application of these principles.

We sometimes follow the maxim, "Similia similibus curantur," but not often. You sometimes follow it, but not always. We strike at the cause of the disease and remove it whenever we can find that cause. So do you whenever you are convinced that it is a cause, as with intestinal worms, or head lice. Those of you who are convinced that quinine kills the malarial parasite in the blood just as a vermifuge kills an intestinal parasite in the gut, use quinine for malaria, just as we do.

We have come round to your minute doses in some cases, and there is no knowing how much further we may go. You, on the other hand, are not tied down to minute doses, but are quite ready to use larger doses when better effects are obtained thereby.

V. *The Single Remedy.*—Let us now turn to another cardinal tenet of homeopathy —the single remedy. There we must frankly confess that old school practice has come much nearer to homeopathic usage within the last ten years. We, many of us, use but one drug at a time. "Drug" is never synonymous with remedy in our terminology, and so we should rather say that we often see several remedies, e.g., regulations of the diet, fresh air, exercise, hydrotherapy and mind-cure all at once, but with these remedies we prefer to combine not more than one drug —sometimes less. When I turn to some of the older books on therapeutics, some still used in our school, and see how frail the human stomach is expected to bear not only the drug but an adjuvant, a corrective, a flavor and perhaps more ingredients, I rejoice that we no longer practice what some of our textbooks still preach.

There is not longer any ground for discussion between us as to the advisability of giving but one drug at a time. I think there is no longer any considerable difference between the practice of the two schools in this respect and in consultation with seven of your body, Drs. Sutherland, Batchelder, Rockwell, Moore, Carvill, Everett Jones, and Hubbell, I have found entire agreement as to the advisability, in special cases of giving several drugs alternately to the same patient.

Not long ago a meeting of this kind would be sure to attempt a discussion of the belief that homeopaths treat symptoms while Old School practitioners treat the cause of the disease or the diseased organ itself. But in our time this, like so many other grounds of controversy, has vanished.

You and we alike treated the cause of disease whenever we can find it (which, alas! is not very often).

You and we alike extirpate a diseased organ by surgical interference when the symptoms appear to make such action advisable.

You and we alike are often unable to locate the cause of disease, or even the diseased organ, and then you and we alike fall back upon the treatment of symptoms. None of us wants to treat sypmtoms if we can remove their cause. All of us are forced to treat symptoms when we can't find or can't remove their cause—as is the case in the great majority of cases seen by any general practitoner. Sometimes we treat the totality of symptoms—that is in our language, the evidences of disturbed functions, when we recognize them, as for example, the dropsy, dyspnea, cough, palpitation, insomnia, nausea, oliguria and pain produced by passive congestion in uncompensated cardiac disease. Sometimes we are forced to treat a single symptom, like headache, because we can't connect it with any other symptoms or with disease of any organ.

We are all in the same box here and there is nothing to discuss.

VI. *A Law of Therapeutics.*—It has been perfectly just to charge our school in the past with the absence of any principle of or law in therapeutics, and to contrast the order and system of homeopathic treatment with the helter skelter omnium gatherum of merely empirical methods. But the contrast is no longer just. Homeopathy has a well-defined law which has been established (like all laws) empirically and is constantly and properly being subjected to re-verification through careful experiments. We also have at last, after much groping and long years of work obtained a law of therapeutics, a principle of therapeutic effort—namely the principle of immunity—natural and acquired, and of the means by which it may be attained, augmented, protected.

To increase the power of the organism to resist disease is the aim of our diet-therapy, our hydrotherapy, our mechanical and surgical therapy, our mind cure, our rest cure, and work cure, our climatic and hygienic efforts, and of all the most satisfactory part of our drug-therapy. That this law is as wide as the law of similars, I think you will agree with me, for though it does not cover all our pharmacology it does extend over the other fields of our therapeutics where food, water, light, air, exercise, mind cure and even much of surgery find their place.

Your principle does not yet apply to all

cases. Neither does ours. Your principle is empirically built up and empirically verified; so is ours. We are not bound by our principle, nor by yours, but in both schools the principle guides research and stimulates discovery, which is the true function of a principle.

Our views of the founder of homeopathy are far less divergent from yours than they were fifty years ago. We recognize now that in his day and generation he stood for a great and beneficent reform in medicine. The "gentle action" of homeopathic remedies and the "high regard for the unaided powers of nature" which is characteristic of homeopathy are in refreshing contrast with the violent and obviously harmful methods of Old School practice in Hahnemann's day. Had we lived in that age how fortunate would any one of us have been who fell into Hahnemann's hands and so escaped being bled, purged, puked, sweated and salivated as was then the custom of our school. All this we now recognize. On the other hand, homeopaths no longer feel bound to defend everything in Hahnemann's system, and generally recognize that in many respects the science of medicine has not stood still since he died.

Do I then think that there is entire agreement between our schools? Not at all. We have come far towards you and you far towards us. Which has gone the further I do not know nor care, but we are still far apart in a portion of our pharmacology and my purpose in the remainder of this paper is to indicate certain ways by which, I think, we can come nearer still.

First of all, one thing is certain. There must be concessions on both sides—not only on your side, if we are to get together. We must admit that we have been wrong in the past and probably are still wrong in many points. We have certainly been wrong—some of us—in our prejudices against homeopaths, in blaming all homeopaths for the faults of a few. I confessed to you a year ago how much surprised I was to find that there were homeopaths both honest and intelligent. Well, there are still a good many of our school who have not made the discovery, and it is high time that they should. I suppose there are also in your body some who find it hard to believe that we of our school are not all arrogant and prejudiced.

VII. *Some of Our Mistakes.*—We have been wrong in the past in refusing to consult with homeopaths and to join with them in state and national societies. But we have seen and admitted our wrong and are doing our best to get together with you wherever you will meet us now.

We have been wrong and irritating in arrogating to ourselves the term of "regular" as opposed to homeopathic. You have been kind enough to spare us more and more of late that ridiculous term "allopath," and to call us by the neutral name of "old school." This is by no means a perfect designation for an up-to-date professsion which in therapeutics has largely repudiated its past and now agrees with you in everything else. Still, in the interests of harmony I think we should sacrifice something, and no one can help recognizing the arrogance of the term "regular."

We have been wrong in saying and believing, as we often have that there are no real homeopathists nowadays, none that really take Hahnemann's doctrine of similars seriously. One of the things that has most impressed me in my friendly and pleasant contact with homeopaths during the past year has been the studious care with which my friends in your school endeavor to select remedies according to the law of similars, and the unfeigned confidence which (in certain cases) they place in these remedies.

We have been wrong in not admitting more candidly the bearing of certain well-known facts of pharmacology on the issue between your school and ours. The use of digitalis in relatively small doses to relieve symptoms similar to those of its overdose, the partial similarity between the symptoms of scarlet fever and those of belladonna poisoning, the supposed value of ipecac in controlling nausea (still stated in our text-books, though most of us fail to obtain any such effects) the fact that you can produce some (by no means all) of the symptoms of malaria by large doses of quinine and some lesions like those of syphilis by over-dosing with mercury, that nitroglycerine will often produce and sometimes cure a headache—all these are facts which we should realize and whose significance we should study as far as we can.

We have been wrong in experimenting so little as we have with homeopathic remedies. The whole question for us should be, do they work? Not long ago I suggested during a consultation that it would be well to try 1-25 of a grain of calomel in repeated doses for a toxic diarrhea in an old lady. The attending physician was horror stricken. "Why, that's homeopathy," he said. "Well, I said, "it was suggested to me by an old school physician, one of the best-known men in this country, and he learned it from his father who was a homeopath. Let's try it, any way."

So we did try it and excellent were the results.

We ought to be as free in using your remedies as you are in using ours, and in acknowledging publicly the good or the harm that results.

VIII. *Some of Your Mistakes.*—Now, after these confessions, I hope I shall not seem arrogant when I venture to suggest certain changes to you; changes that might operate to remove sources of misunderstanding and irritation between our school and yours. I will begin with some trifling matters of nomenclature which yet have their importance as causes of friction.

I think you homeopaths are somewhat too tenacious in your hold on roots and stems—not in the botanical but in the linguistic sense.

(a) The Greman word "Prufung" is a good word, but its proper translation is not "proving" but testing or experimenting. Proof in ordinary English means something very different from experimentation. When you speak of proving this or that, the impression naturally conveyed is that you are demonstrating what is already true, as one does in geometry; whereas in medicine your effort is an open-minded search to find out what the truth is. The lawyer who can and will prove anything is justly called a liar, but if proof meant only test, the readiness to prove all things (as in the Scriptual usage no longer current) is most praiseworthy.

I should suggest, then, that you no longer hold yourselves aloof from common usage, and translate in future the word "prufung" as the rest of the world translates it, namely, as testing. Thus you will sound more open-minded and less dogmatic.

(b) The Latin word "Cura" is not to be translated as cure, but as care. Of course you all know that as well as I, but I cannot help thinking that misunderstandings have arisen in the past because you have spoken of curing disease with a drug when you have realized as well as we do that nature does the larger part of the work, assisted more or less by our drugs and other remedial measures.

To us, and I think to the public in general, a drug that cures a disease is a specific, yet I take it that Dr. J. H. Clark properly states your position when he says ("Homeopathy Explained," p. 149). "In homeopathy we have, as I have shown over and over again, no specific for diseases." You cure diseases as little as the rest of us. You take care of the patient and promote his recovery by drugs and other measures. It sounds arrogant to say as homepathists sometimes do that the old school palliates while homeopathy cures. It is, I believe, an overfondness for stems and roots that has lead to this misunderstanding. Let us use the word "cure" only when we believe that we have a demonstrable specific for a disease, as we think we have in quinine and diphtheria antitoxin.

(c) In naming drugs let us keep as close as we can to current usage outside the profession and cease to hold ourselves aloof. Let us call a spade a spade; let us call corrosive sublimate by its christian name rather than by the stumps of two names like merc. corr.; when we mean charcoal, let us not call it carbo.; when we mean sulphur and oyster shells, let us say so rather than cling to that curious relic "hepar sulph." When one means lime, why should one say calcarea?

Now, I am quite aware that many of our own school are doing the same thing when they write their prescriptions in barbarous medieval Latin, or speak of nitro-glycerine as glonoin. But it is, I think, a mistake in all cases.

(d) Finally, I think it would conduce to clearness in discussion, if both parties would be careful not to limit therapeutics, to drug therapeutics, for that accents unduly the differences between our schools. We agree not only in the diagnosis, prognosis and course of disease, but in the whole of therapeutics outside of drug therapeutics and in a portion of drug therapeutics itself. One of our chief grounds of difference, and one not always appreciated by homeopaths is in the relative importance of drug therapy as compared with other forms of treatment. The best men of our school today use far less medicine, I should judge—even in actual bulk—than you do. The chief issue between us is not between homeopathic drugging and old school drugging, but between the old school physician with very little emphasis on drugs and very much on hygiene, dietetics, mechanical, physical and psychic therapy, and the homeopath who adds to a certain belief in these remedial agents a much larger belief in drugs. I doubt if you gentlemen realize how large a proportion of our patients are treated without any drugs at all, and how little faith we have today in the curative power of drugs. I think most men of our schools today would that the only diseases really cured by drugs are malaria, diphtheria, myxedema and those due to intestinal parasites.

Gentlemen, we want the truth, all of it that we can get hold of. So do you. Two ships that steer for the same port are sure to come together sooner or later, no matter how far apart they may be on the ocean. If we keep ourselves in this mind, if we are fair and honest and not uncharitable, we shall pool

our knowledge some day and abolish sectarianism in medicine. I hope and pray that this consummation may come in our lifetime. Whether it does or does not depends largely upon us—our earnestness, our honesty and our good will.

DR. MCMURTRY SPEAKS BEFORE THE KENTUCKY SOCIETY.—The St. Louis Kentucky Society held its seventh annual banquet at the Planters on the evening of January 31. The occasion was, as usual, one of the social events of the season. Dr. Louis S. McMurtry, of Louisville, was one of the three principal speakers of the evening.

NEW ORLEANS AND THE MARDI GRAS are attracting the public eye just at present. If you should visit this grand old Southern city during or after the Mardi Gras, remember the biggest and best thing in New Orleans is the new St. Charles Hotel. Mardi Gras week begins February 7th and ends February 12th. King Rex arrives at 2 p.m., February 11th, the great naval and military parade taking place at this time. The Rex parade occurs at 10 a.m. February 12th, and the grand pageant of the Mystic Krewe of Comus at 8 pm February 12, followed by the tableaux and ball.

THE M. V. M. A. PRIZE ESSAY.—At the last meeting of the Mississippi Valley Medical Association it was decided to offer a prize of $100 for the best essay on some medical or surgical subject. The competition is to be limited to those who, at the time of entering the competition as well as at the time of the award, shall be members in good standing of the Mississippi Valley Medical Association. The award will be made by a committee appointed for the purpose, consisting of Drs. Hugh T. Patrick, of Chicago, A. H. Cordier, of Kansas City, and Chas. H. Hughes, of St. Louis. The name of the author is to be enclosed in a sealed envelope bearing some motto or device, and the essay is to be marked by the same motto or device. The name of the successful author and the title of his essay will be announced at the next meeting of the association to be held in Columbus, Ohio, October 8, 9, 10, 1907, and the award will be made at that time. The successful essayist will be notified at least two weeks prior to the meeting, and he will be expected to read his essay at that meeting. The essay is to be published in the organ of the association. All essays must be typewritten, and are to be sent to the secretary, Dr. Henry Enos Tuley, 111 W. Kentucky street, Louisville, Ky., on or before August 1, 1907, after which date no essay will be received.

THE MEDICAL FORTNIGHTLY

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EDITORIAL

Ventilation and Scientific Assemblages.

WE have been repeatedly impressed with the surprising indifference of the average scientific assemblage to bad ventilation, we think there can be little difference of opinion that the best example of this indifference is presented by the St. Louis Medical Society. This society is largely attended and its hall is usually filled, and a considerable number of the physicians present smoke; they might do worse, but the deadly fear of a draft impresses us more than the smoke question. It seems impossible to have a window open in the hall, even when the condition of the atmosphere is such as to make close attention impossible and clear thinking utterly out of the question, the man near the window will refuse to allow it to remain open even for a short interval. Why physicians who are supposed to be constantly preaching a gospel of fresh air should be so averse to indulging therein when they are congregated together is past finding out.

The St. Louis Medical Society is making tremendous strides these days and growing in importance visibly from day to day, a material aid to its growth in scientific importance would be the appointment of a ventilation committee with power to act.

Death of Dr. A. V. L. Brokaw.

DR. A. V. L. BROKAW, chief surgeon of the United Railways Company and one of the best known physicians of this city, died at his home, at 4482 Washington boulevard, on Friday, January 25th at about 10:30 o'clock. An attack of grip was the beginning of his fatal illness, and this

with complications caused him to become critically ill about midnight Wednesday. A marked improvement in his condition was reported Thursday, but his condition became critical Friday and he sank rapidly until the end.

At 12:45 o'clock Friday afternoon he suffered a hemorrhage of the stomach. This left him very weak, and two hours after the first bleeding he suffered a second hemorrhage. He lapsed into unconsciousness about 4 o'clock. All was done to aid him that medical skill could accomplish. Drs. F. A. Temm, L. P. Butler and John Young Brown were with him almost constantly after his illness took on a serious aspect. Drs. Paul Y. Tupper and Harvey G. Mudd were called into consultation.

DR. A. V. L. BROKAW

(From a photograph taken in 1892.)

Dr. Augustus Van Liew Brokaw was born in St. Louis, April 16, 1863, the son of Frederick Van Liew and Marion (Roberts) Brokaw. His father was then superintendent of the city hospital, and it was there that the son was born. He was educated, in the St. Louis high school and was graduated from the Missouri Medical College, now the medical department of Washington University, in 1883. He took post-graduate courses at the University of Berlin, University of Vienna and other European universities and hospitals.

Dr. Brokaw early showed special adaptation for the surgical side of his profession and made it a specialty. He was surgeon in chief at St. John's Hospital, professor of clinical surgery in the medical department of St. Louis University, member of the International Surgical Society, American Medical Association, Missouri State Medical Association, Southern Surgical Association and St. Louis Medical Society, Gynecological Society, Tri-State Medical Society and the Medical Society of City Hospital Alumni.

Dr. Brokaw is survived by his wife, Julia (nee Crawford), of Tuscaloosa, Ala.; his 7-year-old son, A. V. L. Brokaw; his father Dr. F. V. L. Brokaw, a retired practitioner, who had a large following during the early days of St. Louis; his mother, his sisters, Miss Marion R. Brokaw, of St. Louis, and Mrs. James H. Lowell, of New York City; four brothers, Fred H., Paul V. D. and Linn R. Brokaw, of St. Louis, and Robert W. Brokaw, of Wilmington, Del.

The funeral took place on the afternoon of January 28th, from the family residence to Bellefontaine Cemetery. Rev. Dr. H. H. Gregg of the Washington and Compton Presbyterian Church and Rev. J. L. Mauze of the Central Presbyterian Church conducted these services. The funeral was attended by a very large number of local and outside physicians, and was the occasion of deep sorrow to the whole American profession.

The Growing Friendliness of Homeopathic and Regular Medicine.

In another department we are reproducing an address recently delivered before the Boston Homeopathic Society, by no less of an authority than Dr. Richard C. Cabot, of our own school. The article though addressed to another school may well be read by regulars. We have felt great encouragement in the increasing liberality of our medical organization toward homeopathy. It is a definite probability that homeopathy, had it originated in the present day, would have continued within the fold just as do the stronger advocates of various lines of special treatment which we now number with us. That the American Medical Association, the State Association and the local medical organization now receive into membership physicians who are practicing clean medicine, and who do not pose as "pathists," no matter if they do happen to be graduated from a homeopathic or eclectic school (provided, of course, the school is one giving courses of such thoroughness as to be approved), marks a great change in the attitude of medical men of both schools. True it is that union is a long way off, and it is but the few who have joined us. The breach has been a wide one,

and there have been such grievous personal differences! The regular profession is not yet a unit in wishing the doors thrown open, and it is but natural that the other side should look with a degree of suspicion on the announcement that they may join us. It appears to them that they are expected to give up that which means much to them; then they are not sure that they will not have to hear their fond beliefs ridiculed should they join us. Both sides have much to learn before union can be effected harmoniously, and Dr. Cabot and men like him are doing a good work in preparing the way. The campaign of education must be directed to both sides, such articles may quite as advantageously be directed to the regulars as to the pathists.

"The King is Dead, Long Live the King."

SPECULATION is rife as to the probable successor of Dr. Brokaw, whose death leaves a vacancy at the head of the medical service of the United Railways. The strongest probabilities point to the placing of Dr. John Young Brown in this important position; should this become an accomplished fact the City Hospital will be without a superintendent, and there are a number of physicians who have indicated that they would not decline should the call come to them. These things usually settle themselves, and it is not the man who has the longest list of recommendations that gets the plum in the usual run of such events. Dr. Brown has so ably administered the affairs of the hospital during his administration that we would regret any abbreviation of his tenure were it not that the change would put him in the way of being of possibly greater service to the community.

The X-Ray and Malignant Disease.

THE intelligent employment of the Roentgen ray in the treatment of malignant disease is unquestionably a line of therapy of constantly growing importance, yet it is only the charlatan who claims that he has in this agent a means to an absolute and invariable cure. Speaking on this subject in the issue of the Journal of the American Medical Association for January 26th, Dr. E. G. Williams states that he feels that we are still only in the pioneer stage in the discovery of the possibilities of the Roentgen rays in the treatment of disease. The variation in results reported should be no discouragement. We have to consider the variability of the various factors in the production of the ray, in its method of application, in the penetration and effective energy of the rays from different sources and the different nature and locations of the growths treated. The lack of a unit or standard to use in applying the ray is another difficulty which he has met approximately by the use of the electric units of current in the tube circuit. To a certain extent also the physiologic efficiency of the ray is proportional to the energy given off from the tube, but it depends more on the degree than on the total quantity, on the principle that one strong blow is more effective than a series of lighter ones, though the total amount of energy may be the same. This seems to him to be true, notwithstanding the fact that the action of the ray is to a large extent cumulative, i.e., the effect of one treatment persists over many days and subsequent exposures during this time are superadded. The physiologic efficiency is estimated by observation and study of the tissues exposed. The rays seem to have no effect on dead organized matter, and if we knew the nature of the difference between the living and the dead we could probably explain the action of the rays. Williams suggests the possibility of a close relation between the vibration period of the rays and that of atomic or subatomic activities that constitute the vital principle in protoplasm. It is the cells, and these in proportion as they exhibit the manifestations of life, that are principally acted on by the rays, and this explains the selective action on malignant growths, especially carcinomas, that have the largest proportion of vitally active cells. In the treatment of tumors, therefore, the result depends on their constituent cell tissues and their accessibility to the proper quality of radiant energy. Hence the adaptability of the rays for superficial malignant growths, while for deeper ones excision is indicated, followed, of course, by sufficient exposures to the rays to destroy malignant cells that may be left. Excision should also be practiced, in his opinion, with cancer of the lips or of any mucous membrane, as he has found such for some reason especially resistant to the rays.

MISSOURI EXCURSION TO THE AMERICAN MEDICAL ASSOCIATION.—Arrangements have been perfected for a special train for Missouri delegates and their friends, running via the Big Four and C. & O. railways. Stopovers at White Sulphur Springs and the Jamestown Exposition have been provided as a part of the itinerary. Full particulars may be obtained by addressing Dr. Chas. Wood Fassett, St. Joseph, Mo., who will have charge of the train.

The Hospitals of New St. Louis

THE ST. LOUIS CITY HOSPITAL.

Our readers will find it difficult to reconcile the above picture with its title, so many of us have known the St. Louis City Hospital as the old pile of brick and mortar which for many years graced the site on which the present buildings stand and which was destroyed by the cyclone of 1896. The pavillions shown above were completed in the summer of 1905 and have since been occupied; three others under contemplation to complete the group will be erected very shortly. The present capacity of the institution is 350, this will be doubled when the institution is completed. Under the administration of Superintendent Dr. John Young Brown the institution is knowing a period of great material and scientific prosperity.

FORGERY—WARNING TO THE PROFESSION.—We are notified by Dr. A. L. Benedict of Buffalo, N. Y., that his name is being forged to checks which are being cashed in St. Louis. The forger appears to be a man who is well acquainted with the doctor and with his banking and other business arrangements. The local profession is warned against him and his operations.

DR. JOHN YOUNG BROWN,
Superintendent of the St. Louis City Hospital.

REPORTS ON PROGRESS

Comprising the Regular Contributions of the Fortnightly Department Staff.

NERVOUS AND MENTAL DISEASES.

FRANK PARSONS NORBURY, M. D.

A Note Upon Two Important Points in the Localization of Tumors of the Frontal Region of the Brain.—Dr. T. Grainger Stewart, of London, in the Review of Neurology and Psychiatry, December, 1906, mentions two important localizing signs presented by tumors of the frontal lobes. The first is the absence, diminution or easy exhaustion of the superficial abdominal reflexes on the side opposite to the tumor; the second is the occurrence of a fine, rapid vibratory tremor in the limbs of the same side as the tumor. Both of these signs are often present in cases of frontal tumor, and the diminution of the superficial abdominal reflex is rarely absent in any case in which the growth has attained such a size as to give rise to the general symptoms of intracranial neoplasm. Loss or diminution of the superficial abdominal reflexes, appears to depend on some action of the pyramidal system. In cases of cerebral tumor the alteration of abdominal reflex occurs before any change may be noted in the deep reflexes, or in the plantar response. It is of value as a localizing symptoms in all cases of cerebral tumor, but in cases of tumor of frontal region, where focal symptoms are late in appearing it is of special service. Stewart says he has never found it fallacious in the first localizing sign of frontal tumor. The second sign, tremor in the limbs of the same side as the tumor, may be observed in both upper and lower limbs, but is more constant and better seen in the arm than in the leg. It is absent during muscular rest, and is best brought out by making the patient extend both arms horizontally in front of him with the palms directed downward and the fingers extended. It will then be noted that the homolateral arm and hand are in a state of constant fine tremor in contrast with the contra-lateral arm, in which tremor is absent. The difference between the two hands can be better realized by placing a palm lightly upon the back of each of the patient's hands. Stewart's observations are based on a study of twenty cases of frontal brain tumor observed at the National Hospital for the Paralyzed and Epileptic, London. A table is published giving in detail the studies made of these cases.

Constitutional Headaches. — (George L. Walton, M. D., Jour. A. M.A., Nov. 10, 1906).—This is a valuable paper, concise, but full of practical knowledge which physicians in general practice need to know and to appreciate. Headache, as we all know, is worked over time as a condition and as a symptom, and Walton here gives an explanation to many of the complexities of the subject. A patient, a young woman, complains of constant headache of many years duration. Being asked if it is really continuous she answers, "Certainly it never leaves me day or night." The headache is not distinctly localized. There is an obvious refractive error, but its correction affords no relief. There is obvious nasal defect, the treatment of which is negative. There is malposition of the uterus, but local treatment proves inefficacious. Organic disease of the brain, kidney or other organs are eliminated and no toxic cause has been discovered. What is the probable diagnosis? Constitutional headache. Walton says it is to be included among the stigmata of derviation and is explained as follows: The patient may show no special physical peculiarity, except perhaps, unusual delicacy or, more frequently, signs of deviation from the average normal, either physical, physiological or mental, or all three. On the physical we find a too prominent forehead, a projection of the lower teeth beyond the upper, peg-shaped lateral incisors, hair on the face in the female, or absence of hair, if the patient be a male, marked facial asymmetry, and badly formed or badly set ears. On the physiologic side we find a hypersensitiveness to sights, sounds or thoughts, sometimes associated with an extreme acuity of special sense. Such a patient may have vision double that of an average person. On the mental side, such a patient is liable to be high-strung, intense, unable to relax, either physically or mentally. Strong likes and dislikes are prominent, also exaggerated self-consciousness; fussy antagonism, the questioning of each step in the examination, etc. Certain sources of irritation "simply drive the patient wild," or she "simply cannot bear" something, though the cause may be very slight, like that of a person rocking a chair, or clearing his throat. While the patient, in the meantime is addicted to some obsessive habit, as grunting, sniffing, etc. Such patients are victims of the touching habit, hypochondrical ideas and chronic indecision, etc. For such conditions Walton has given the name of obsessia, since all these faulty mental habits may be analyzed into obsessive tendencies. The hypochondrical ideas result from such an obsessive desire to feel comfortable, that any variation from perfect comfort becomes unendurable. This line of thought prepares us to appreciate the probable nature of the constitutional

headache. In its typical form this headache is not perhaps, what the average normal individual would call a headache at all. It is merely rather an uncomfortable secretion which is so irksome to the ideo-obsessive, and becomes so aggravated by the focusing of her attention on it that at last only such terms as agonizing, frightful and excruciating seem adequate. In ordinary parlance such a headache should lay the patient low, whereas she sits in the neurologist's office after a long examination perhaps smiling and complacent, explaining her own ability to do so by the fact that she has an extreme degree of will power. She has ample will power, but it is ill directed. In other words, this headache is probably the patient's interpretation of the ordinary sensations resulting from cerebral activity. The headache is a part of a vicious circle, of which mental fatigue, through inability to relax is a part. The headache is only another sign of deviation of which the error of refraction, the congenital, nasal or uterine defect are merely other indications.

Constitutional and Reflex Headaches.—There is perhaps no sharply dividing line between constitutional and the purely reflex headache. The ticking of a clock may be the exciting cause of insomnia, but the very fact that a clock tick keeps a person awake indicates a sensitive organization on her part which constitutes the underlying cause. Similar comparisons indicate why pollen may be the exciting cause of hay fever, and a quarter of diopter of astigmatism with being the cause of migraine. Both may be exciting causes, but the underlying cause must be the unfortunate constitution of the individual which renders him susceptible. Between the purely reflex headache on the one hand and the purely constitutional on the other, there are doubtless a large number of cases in which the two elements are combined and so interdependent that it is only viewing one side of the shield to class the headache as either purely reflex or purely constitutional. Treatment.—The treatment of constitutional headache is obviously not hopeful, for its eradication would involve an entire change in the patient's inherent make-up, including susceptibility to fatigue. The correction of obvious ocular, nasal, uterine or other defect is indicated by way of giving the reflex element the benefit of the doubt. Special drugs are of no value, though it is, of course, indicated to build up, as far as possible, the patient's general condition not only by drugs, but by exercise, diet, baths and the regulation of habits. If by mental training the patient may be led at least to modify the obsessive tendency, a step has been made in the right direction.

INTERNAL MEDICINE.

O. E. LADEMANN, M. D.

The Paravertebral Triangle of Dulness in Pleural Effusion (Grocco's Sign).—Thayer and Fabyan (Am. Jour. of the Med. Scs., Jan., 1907) illustrate their monograph with five illustrations. Their conclusions are as follows: 1. In thirty-two cases of pleural effusion a paravertebral triangle dulness at the base of the opposite chest (Grocco's sign) was clearly demonstrated in thirty. In one of the remaining cases, an instance with a small effusion, in which the examination was rather hastily and imperfectly made, but a small indefinite area of dulness was noted. In the other cases the absence of the paravertebral triangle was easily explained by the position of the exudate—an interlobar empyema. In a third instance in which the triangle was demonstrated later, it was missed on the first examination. The sign, therefore, may be regarded as practically constant in cases in which there is free fluid in the pleural cavity, or in which an encapsulated effusion impinges on the spine. 2. This triangle is an area of relative dulness, the vertical side of which is represented by the line of the apophyses of the vertebrae, the apex reaching a point somewhat above the level of the flatness of the effusion; the base is found by the lower limit of pulmonary resonance on the healthy side for a distance of from 2 to 7 cm. from the spine; the hypothenuse, by a line connecting these points. This last line shows, sometimes, a slight outward convexity. The dulness is more marked as one approaches the spine. In the triangular area of dulness the respiratory murmur is often suppressed and of a quality similar to that heard over the effusion. Egophany or nasal quality of the voice sounds may also be present. The coin, sound, when the maneuvre is carried out by placing the coin on the front of the chest below the level of the effusion, shows the same metallic ring as that which is observed over the affected side. These signs may be so marked as to make it possible to outline the area of the triangle by auscultation. 4. When the patient lies on the affected side the triangle of dulness diminishes or disappear, and return again when the erect posture is assumed, or when the patient lies on the other side. 5. The triangle is usually larger on the left side—that is, in the case of right-sided effusions—than on the left. 6. In three cases

of encapsulated effusion the presence of a paravertebral triangle of dulness on the opposite side proved of real diagnostic assistance. 7. The author's experience justifies the conclusion that the paravertebral triangle of dulness is a remarkably constant and characteristic sign of fluid in the pleural cavity. It further supports the assertion of the discoverer that it may be of particular value in case of encapsulated effusions. They regard the sign as an important addition to our means of diagnosis of effusion in the pleural cavity. 8. As to its cause, they are inclined to accept the explanation offered by Baduel and Siciliano, namely, that the fluid, lying against and passing anteriorly over the bodies of the vertebrae, acts as a mute in suppressing the sonorous vibrations of the spine. The deadening of the resonance is naturally appreciable for a certain distance beyond the median line over the area occupied by the transverse processes and the first part of the ribs. It is more marked and extends over a wider area at the base, where the fluid, collecting in the sinus of the pleura, comes into wider contact with the vertebrae and pushes further around toward the opposite side. The displacement of the contents of the mediastinum—aorta, esophagus, azygos vein, heart—may play a part, especially in effusion on the right side of the chest, in producing the dulness as well as in bringing about a certain degree of compression of the lung on the opposite side. 9. Although there may be a small strip of dulness along the spine opposite a pneumonia, the writers have but once detected anything approaching a paravertebral triangle. In this instance the dulness was not very definite and showed little or no change on change of position.

Acute Pulmonary Edema with Special Reference to a Recurrent Form.—Riesman (Am. Jour. of the Med. Scs., Jan., 1907) epitomizes the history of six patients who were subject to periodic attacks of acute pulmonary edema. He says there is an acute pulmonary edema that comes on without any apparent exciting cause, and often kills in a short time. Recovery from an attack is frequent; but there is a striking tendency to recurrence, subsequent attacks being similar to the first. They set in suddenly, usually at night, and place the patient's life in jeopardy. The clinical causes are various: arteriosclerosis and cardiac and renal disease are most important. The pathogenesis is obscure; vasomotor disturbances and a disproportionate activity of the two ventricles (the right predominating) are the chief factors. The chief symptoms are agonizing dyspnea, cyanosis cough, expectoration of frothy albuminous fluid, and profound prostration. Over the lungs, often more over the upper than the lower portions, the characteristic moist rales of edema are heard. The most valuable remedies are bleeding, dry cupping and cardiac stimulants.

The Nature of Aplastic Anemia and Its Relation to Other Anemias.—Lavenson (Am. Jour. of the Med. Scs., Jan., 1907) reports in detail a case of aplastic anemia in a woman 33 years old, together with a brief synopsis of the cases he was able to find recorded in literature. His article is illustrated by a colored section of the normal bone marrow, typical progressive pernicious anemia, scattered areas of megaloblastic degeneration in progressive pernicious anemia and aplastic anemia. He concludes his paper as follows: Aplastic anemia is a variety of progressive pernicious anemia. The essential features of aplastic anemia are: A rapidly fatal course; a marked reduction in the number of red blood corpuscles; a greater proportionate reduction in the amount in the number of red blood corpuscles; a greater proportionate reduction in the amount of hemoglobin, resulting in a low color index; a leucopenia with a relative lymphocytosis; an absence of megaloblasts, and usually normoblasts. Postmortem: the characteristic finding is a pale bone-marrow in which the signs of erythrocytic and granulated leucocytic formation are wanting. The difference between aplastic anemia and the usual form of progressive pernicious anemia result entirely from the absence of regenerative processes in the former. The blood picture in aplastic anemia is the result of two factors, one the hemocytolysis, and the other the failure of regeneration on the part of the bone marrow. The failure of regeneration of the blood elements of the bone-marrow represents the result of one of three following conditions: (a) A simple deficiency of the regenerative powers; (b) an inhibitive action, and (c) a true aplasia of the bone-marrow. If there be a true aplasia it is probably of recent origin, for if it were of long duration there would in all probability have been manifestations of a deficiency in blood formation before the advent of the hemolytic agent. The relation of lymphocytes to leucocytes and red blood corpuscles in aplastic anemia lend evidence to the view that lymphocytes are not a specific product of the bone-marrow.

Uric Acid Elimination in Gout Alcoholism.—Pollak's (Deutsche's Archiv für klinische Medizin, Bd. 88,1-3 Heft) experiments prove that in alcoholics there is a disturbance in metabolism quite identical to gout. He noted that in alcoholic subjects there was the

same tendency to retention and delay in the elimination of uric acid after the ingestion of 20 grams of nucleic acid as in gout, a manifestation hitherto regarded as pathognomonic of the latter condition. A healthy person showed an elimination of 0.558 gm, the first day; a gouty patient 0.198, and three heavy drinkers from 0.055 to 0.387 gm.

Physical Methods of Treating Heart Disease.—Bennett (The Practitioner, London, Nov., 1906) summarizes the action of the Nanheim bath as follows: A general dilation of the capillaries and smaller blood vessels of the surface, with consequent relief to ventricular contractions. A slowing of the pulse with more complete emptying of the ventricles. An increase in the tone of the capillaries, with probable increase in the force of their rhythmical contractions, causing additional volume and rate of the distal circulation. A floating upward of the heavy abdominal viscera by hydrostatic pressure. A reflex nervous effect on the cardiac ganglia, whereby the ventricular power is increased and regulated. The action of the skin and kidneys is also increased. Certain beneficial trophic effects, in cases of anemia, neurasthenia, osteoarthritis, diseases of the spinal cord, and some cases of peripheral paralysis.

OTOLOGY.

ALBERT F. KOETTER, M. D.

Adrenalin and Its Use in Laryngo-Rhino-Otology.—(Prof. Dr. W. Lindt, Bern; compilation from the internationales Centralblatt fuer Ohrenheilkunde.)—In the last few years the literature on the preparations of the suprarenal capsule has grown enormously, especially on the adrenalin, and in countless publications the physiological and therapeutic actions of this new remedy have been described, it will not be amiss to mention here a resumé of what has been offered, inasmuch as the subject has been thoroughly explored.

In the year 1898 ophthalmologist proved the vaso-constrictor action of the aqueous suprarenal extract on the conjunctiva bulbi, and in the same year the Americans, Sargno, Swain, Bates and others introduced it into laryngology and rhinology. Rapidly the experiments with the aqueous and glycerine extracts from the capsule of the suprarenal of the sheep aud the ox were made in all countries, the physiological action of the extract and its manifold therapeutic uses in animal and man studied. All the important actions which made the preparation so valuable were found in this way, the vaso-constrictor, the anemia, the increased blood pressure, the hemostatic, in local application on the mucous membrane, as well as in subcutaneous injection. Also the happy combination of the suprarenal extract with cocain to gain a less dangerous and better local anesthesia and anemia had already been discovered (Peters, Bulette), and, the limitations of its therapeutic uses been recognized, nevertheless the preparation had certain disadvantges, easy decomposition, inconsistency of action, insufficient sterilization and the necessity of a clean, sterile and lasting preparation, that contains the active substance isolated, continually grew stronger. Atrabilin, epinephrin (von Abel), suprarenin (von Fürth) were found, but did not entirely satisfy, the latter might be the best. In the year 1901, Jokichi Takamine, New York, succeeded in producing the active principle in the form of crystals, he named it adrenalin. As adrenalin hydrochloricum of Parke, Davis & Co. in 1-1000 solution it was introduced to the trade, this preparation may be sterilized by boiling. The chemical formula according to Bertrand is $C_9H_{13}NO_3$, verified by Aldrich, Fürth, Jowel, Bergel, Pauly and Abderholden.

Rapidly the English, French and German manufacturers produced others containing the active principle of the suprarenal capsule, almost identical with adrenalin. The adrenalin of Clin, paranephrin of Merck, hemisin of Burroughs, Welcome & Co. in tablet form, the tonogen, the hemostasin of the serum institute Bern, atrabilin of Leschnitzer. All have the same action, but according to some reports all do not act equally intense, some in weaker solution act the same as others in strong solution.

There were also produced different combinations of the above mentioned adrenalin preparations with cocain and eucain in solution, or in tablet form, so that the physician has a large selection of good preparations in a practical shape.

The reports of the physiological action of the adrenalin in the animal, its therapeutic use in man, in different affections, its use to produce local anesthesia and anemia with cocain, its use in the operative technique are numerous, and new ones continually appear. But nothing of importance is found in the newer reports.

A short illustration of the physiological and toxicological action of adrenalin follows.

The remedy increases to a remarkable degree the blood pressure in intravenous application, and, namely, in the colossal dilution of 0.00000024. This increased blood pressure is due chiefly to a contraction of the peripheral vessels of the body, and not to a direct irritation of the heart muscle, the

latter, according to Cyon, is only indirectly irritated, increased work by contraction of the vessel.

According to one the remedy acts centrally through irritation of the spinal vaso-constrictor centers, to others on the peripheral nervous arrangement of the vessels, or both come into consideration. The quickened pulse is due to a direct irritation of the n. n. accelerantis cordis.

It is certain that the adrenalin causes the smooth muscles of the vessels to contract, but it is not certain if the remedy acts directly on the muscles or directly on the nervous terminal organs in the muscle, according to Möller, the latter is more likely the case.

Remarkable but proven by all investigators (Möller and many others) is the inefficacy of the remedy on the vessel of the pulmonary circulation, here neither contraction nor increased blood pressure can be demonstrated (absence of the vasomotor nervous arrangement in the vessel.)

For the cerebral vessel it is proven that by introduction of the adrenalin into the general circulation, a dilation of the cerebral vessels takes place, but by direct local introduction in the cerebral vessels a contraction occurs (Spina). The strongest contraction is noticed in the plexus of vessels supplied by the splanchnic nerve.

The adrenalin, according to Oliver, Schaefer, Langley and Kahn, acts on the respiration, it causes a prolongation of the expiration and shortens the inspiration, if on account of direct or indirect (secondary) influence on the centers of respiration, has not been decided. On the remaining smooth muscular system, with exception of the gastro-intestinal muscular system, adrenalin acts as an excitant, as for instance, according to Lewandowsky, on the arrectores pilorum, which is splendidly illustrated in the porcupine. According to Langley it also causes strong contraction of the uterus.

Lewandowsky observed short mydriasis after intravenous injection which were stronger and more lasting after previous extirpation of the supreme sympathetic ganglion (Meltzer). Reaction of adrenalin on the gastro-intestinal muscular system is relaxing, arresting peristalsis, Pal, Boruttan, Langley, Dixon. This action is verified by Möller, but there remains unexplained, why, according to the Italians the paraganglin (Vassale) acts so favorable in atony of stomach and intestine. Very likely the variations in the action in different species of mammals and in the human being, play a part. So also the reports as to the action on the muscular system of the bladder, according to laboratory experiments, differ, one claiming adrenalin causes contraction, another relaxation. We must assume that different preparations do not act alike in all points, that different organism act differently as opposed to the action of adrenalin, and that the idiosyncrasies, that we observe in man, may be the cause of this fact.

Thorough studies on the action of adrenalin for local anesthesia were made by Braun. As through ligation and application of cold and through it a decrease in the circulation of the respective tissue, the vitality of the latter is lowered, so it also occurs with adrenalin where used subcutaneously, and in some instances when applied to the mucous membrane. It effects through disturbance of circulation, a diminished vitality of the tissues locally, which on their part cause a rapid diffusion of the poison in the general circulation and a more rapid destruction, oxidation of the same being prevented. On this rests the fact that whilst the action, causing narrowing of the vessels and the following increase of blood pressure after intravenous injection lasts three to five minutes, after subcutaneous injection lasts from one-half hour to several hours. Braun and others after him have established the fact that cocain in combination with adrenalin injected subcutaneously, is less poisonous than when used alone, and its anesthetizing qualities are increased, so that it may be used in weaker concentration with the same strong effect.

Doe, Davier, Swain, Norton, L. Wilson, Bukofzer and many others proved the same in using the above mentioned remedy, but only on the mucous membrane of the eye and the nose. Bulette observed that since the introduction of the suprarenal extracts, the cases of cocain poisoning in his operative work have become rare.

Supplementary to this Thiers and Berry insist that the adrenalin does not lower the virulence of the cocain in guinea pigs and cats, but rather increases it, and we should therefore be careful not to inject subcutaneously poisonous doses of cocain with adrenalin in the belief that it is allowable.

As the most judicious solution for local anesthesia, Braun uses three drops of a 1-1000 adrenalin solution to 1 ccm. of a 1% cocain solution with 0.6% normal salt solution. The concentration of adrenalin should not be more than 1-10,000, and the injected solution not more than 1 mg., also uses three drops of adrenalin solution to a 2% eucain normal salt solution.

Bukofzer has found in his experiments on the mucous membrane of a living frog, and a rabbit's ear that the veins as well as the arteries contract, but only so far as the rem-

edy comes in contact with them. Deep down it does not work. This proves that when on a blanched mucous membrane in the nose of a human being, due to application of adrenlin, certain vessels show more prominent, these vessels because situated deeper, do not come in contact with the adrenalin, and not that stasis has occurred. Bukofzer also noticed microscopically that at the source of origin of the capillaries that come in contact with the adrenalin, the blood corpuscles found obstacles to their progress; the experiments also seem to prove the contractility of the capillary walls, and the existence of muscle fibers in the same.

Toxicology.—In the animal death occurs through edema of the lungs, that perhaps is caused by paralysis of the left ventricle following the too severe increase of blood pressure. But for this theory certain points of support are absent. In cats asphyxia occurs, in other animals cessation of the heart's action. In rabbits the fatal dose intravenous is 0.1-0.2 mg. per kilogram weight of animal, in cats 0.5-0.8 mg., dog 0.06-0.08 mg. In subcutaneous application the dose must be forty times stronger.

After repeated injection of small doses of adrenalin in the veins of rabbits, Josué has found that then hypertrophy and dilatation of the heart occurs, as well as a peculiar focus like calcification of the wall of the aorta, that he designates as an atheromatous process accompanied by aneurismatic bulging of the wall of the aorta. Other observers Erb, Jr., Rzeutkoenky, Fischer, Hedinger have verified these experiments, but do not consider the focus like calcification identical with atheroma of the aorta. Hedinger found, unanimously with other observers, in the media and the thoracic aorta a destruction of the muscular elements through necrosis and calcification, and a less severe damage of the elastic fibers, in which this process differs considerable from the arterio-sclerosis it is a peculiar meso-ostitis and reminds one of a syphilitic process. The cause is looked for by Hedinger and others in the mechanical toxic influence, the toxic element is the prominent feature, but the peculiar localized findings in the aorta speak for co-operation of a mechanical moment (increased blood pressure). Of the same impression is Mironescu, who through his experiments on rabbits with injection of adrenalin and euphthalmin, which lowers the blood pressure. We are of the opinion that these changes in the aorta of the rabbit are the result of a direct toxic of the adrenalin on the vessel wall, and are supported by the fluctuations of the blood pressure. The observers also found very different individual resistance of the animals against adrenalin and hemostasin, which latter remedy Hedinger used especially and thinks its action more effective. With this remedy he found the same changes after subcutaneous as with intravenous injection, which other observers could not do with other preparations. In these experiments on animals changes were found in other organs, Durmond and du Noel Paton found necrotic plaques in the liver, degeneration in spleen and kidney, and several others found glycosuria (Blum). In human beings the latter was never observed. In animals and old people after subcutaneous injection, discoloration of the skin and necrosis was observed (Blum).

A change in the composition of the blood after injection of adrenalin in animals, in the sense of a temporary decrease of the erythrocytes and an increase of the leucocytes were found by Crouzon and Loeper; a decrease in the capability of coagulation of the blood was never shown, nor a vessel relaxation after contraction of the vessels.

For our specialty, ear, nose and throat, the principal important and most valuable action of the adrenalin are as follows: The vasoconstrictor and therewith anemic action which are clearly and thoroughly described by Bukofzer, Rosenberg, Delsaux, Harmer, Emil Mayer, Roth, Weil, Schubiger and many others, by only external application on the mucous membrane. The blood is evacuated in from a few seconds to one-half minute, not only from the cavernous spaces, but also out of all the small vessels and capillaries of the mucosa, but the remedy does not act well very deeply, not far beyond the place of application, so that the larger vessels do not contract and appear translucent through the otherwise white mucous membrane (Bukofzer, Cuvillier, Vassal, Hahn), therefore its hemostatic action can only be observed in small hemorrhages from the capillaries. The vaso-constrictor action is not followed by a secondary relaxation of the vessel walls and no secondary hyperemia of the tissues so that the eventual secondary hemorrhage, after operations in the nose, that were so to say finished without any bleeding, is according to Bukofzer and others only a delayed hemorrhage and declares step for step the abating of the action of the adrenalin, and the total loss of blood is not greater than if no adrenalin had been used.

In severe chronic inflammation the vasoconstrictor action is not so great, according to Cuvillier and Vassal. Anesthetic action is not found in adrenalin, but it helps increase this action of the cocain, eucain, alypin. It is a cocain saver, as it, as we have seen through the injuring of the nor-

mal blood supply the vitality of the tissue and with that the general action of the poison is lowered, the diffusion of the poison hindered or considerably delayed.

The adrenalin offers untold service in the diagnosis in rhinology. The enormous shrinking of the mucosa allows us to examine the cavities in all depths and fossas and by anesthetizing at the same time with cocain, to probe, following with the eye, which is of great value to judge of the condition of the accessory cavities (Rosenberg). Adrenalin has become indispensable in all operations of the nose, in many of the ear and larynx, where it is necessary to shrink the mucous membrane in order to probe, irrigate, air inflation made possible or more effective, and there the remedy has its most remarkable triumphs, where the mucous membrane must be severed, thereby blood vessels opened. It is therefore of much use in probing, washing out accessory cavities of the nose, in tubal catarrh when it is difficult to pass the catheter (Rosenberg, Bukofzer, Schubiger, Laurez).

It is of value in endolaryngeal interference, in removal of tumors of the vocal chords, and especially in curetting of phthisical patients in connection with cocain (Moure), removal of polyps from the ear.

In operations on the palate and the pharyngeal tonsil it has been used, but nearly all authors agree that it is not to be recommended here not because it is dangerous or detrimental, but because there is no indication for its use (Cuvillier, Baumgarten, Rosenberg). The hemorrhage following this short, rapid operation does not hinder the operator, and is not dangerous to the patient.

In rhino surgery adrenalin has the same importance as the Esmarch bandage in operations on the extremities. The difficult and long drawn out septum resections, in which the hemorrhage was often very troublesome, can now be performed in much shorter time and with very little loss of blood. As it does not penetrate very deeply, it must also be used submucously in resections. As after the withdrawal of the Esmarch bandage an exact staunching of blood must be done, so after a bloodless operation with adrenalin anemia in the nose, an exact tamponage or a good eschar formation of the wound, which thanks to scarcity of hemorrhage is very easily done, must be looked after. This is emphasized by Bukofzer, Roth, Rosenberg, Bates, Swain, Hahn, Goldschmid. According to these observers the secondary hemorrhage is not stronger and more frequent after adrenalin application than if it had been omitted, but also not more rare. Others, like Hopkins, Heymann, Scheier, Sturmann, Lemon, Cuvillier, Vassal and others saw strong and even more severe secondary hemorrhage where adrenalin was used. But we may insist, based on experience up to date that adrenalin as such does not stipulate severe secondary hemorrhage, but this hemorrhage is usually due to incompetent care of wound.

The adrenalin is first used either as a spray or application in dilution 1-10,000 on the mucous membrane, and then the cocain in 5-10% solution, or to the cocain solution are added a few drops of adrenal chloride 1:1000 and the mucous membrane impregnated with this solution. It is not necessary to use the 1:1000 solution undiluted, for it does not act better than the dilution of 1-10,000. The effect occurs in from one-half to one second and lasts long enough to make a half hour operation bloodless. According to Rosenberg the effect lasts from one and one-half to two hours, much longer than with cocain.

We have seen in speaking of the work of Braun that through adrenalin added to cocain the subcutaneous infiltration anesthesia is considerable more active and less dangerous, the surgeons use it a great deal in minor operations. In recent times, Neumann and Alexander at the clinic of Politzer in Vienna, have used a method of local anethesia by means of which they do malleus incus extraction, trepanning in acute mastoiditis, and even long drawn out radical operations (1-1¼ hours) entirely painless. Frontal sinus and antrum of Highmore have been operated on by this method painless and without narcosis. Neumann in trepanning uses a solution 5 ccm. of cocain solution, 12 drops adrenalin and 3 ccm. physiological normal salt solution, and injects seven to eight syringes of 1 ccm. subperiosteally in the mastoid plane at the point of the process and the anterior wall of same.

In the radical operation he uses 7-8 ccm. 1% cocain solution, 15 drops adrenalin, 5 ccm. normal salt solution, therefore 12 to 14 syringes, namely 4 to 5 syringes for anesthesia of external canal walls. Ten to fifteen minutes after the injection the operation may begin. Before this the patient eats a hearty meal and during the operation black coffee and other drinks. Intoxication did not occur and the patient was entirely well afterwards.

From this intense and peculiarly acting remedy we expect a great deal for therapeutics. These great expectations have only been partly realized. While today no rhinologist can be without the remedy as an aid to diagnosis and operation, as a therapeutic agent it is practically worthless. While it has never been recommended as a curative

remedy, it is nevertheless an alleviating and soothing remedy in all acute catarrhs of the nose, pharynx and larynx, rhinitis acuta angina, laryngitis acuta. Bukofzer, Roseberg, Suarez, Vosse (the latter especially in coryza of the new-born and infants), Mayhen, Delsaux, Roth, Schubiger. The result is momentarily a good one, but disappears in from one to two hours. In chronic disease of the mucous membrane with inflammatory infiltration no result achieved (Rosenberg). Many authors praise it in conditions of edema and hypersecretion accompanying vasomotor nose affections (rhinorrhea, coryza, nervosa), while others claim the effect is only temporary. In hay fever adrenalin is used by English and American in a much exaggerated way, in fact, is spoken of by some as a specific (Bates), others claim its action in this neuroses as problematic (Suarez, Swain). Certainly it is useful in many cases of hayfever as an adjuvant (Rosenberg), but of not much greater value than cocain in its time, but without its toxic effects. To cut short attacks of asthma it was recommended by Weil and Aronsohn, and as a substitute for the cocain experiment in reflex neurosis by Bukofzer.

Manifold are the recommendations as a remedy for nose bleed. We have already seen that here its services are valuable, providing the bleeding is not profuse and does not come from the larger vessels, whose walls have not been changed by the chronic inflammation of the tissues or arteriosclerosis. As to the use of adrenalin in hemophilias several favorable reports are at hand (Suarez).

As a palliative remedy to apply in ulcer a laryngis tuberculosa it is recommended by several (Peters, Fredenthal), others like Goldschmid saw no results from its use.

Its anemic action was made use of in treatment of lupus, to cause anemia in the lupus tissue by compression, or to replace the compression where it is not easily made.

Even as palliative treatment in carcinoma of the larynx it was used successfully (Jehard and Mahu), it acts favorably as a cleanser of the ulcers and on the bleeding.

All authors agree as to the harmlessness of the remedy in external application of the mucous membrane, nevertheless it has some not very weighty disadvantages, which rest on the fact that there are persons who have an idiosyncrasy for this remedy. It has been reported that a short time after the application in a number of patients severe irritation of sneezing, itching, in fact a feeling of intense acute coryza, with or without mucous flow (Heymann, Semon, Scheier, Kirschman, Katzenstein, Reichert, Suarez, etc.) after a few hours the attack is over; headache has been mentioned (Weil). Rosenberg noticed urticaria after application of adrenalin on the nasal mucous membrane.

Dangerous toxic action was never noticed in external application. Internally the suprarenal substance, or the adrenalin was used in diseases of the nose, viz., hay fever, rhinitis vasomotoria without definite results (Rosenberg). Whereas used internally it is useful in different hemorrhages, as in hemophilia, hematemesis, hematuria, epistaxis, intestinal hemorrhage in typhus and even in hemoptoe, though according to its physiological action on the pulmonary circulation in the animal, and the experience of other observers no effect was noticed, or either a contrary one (Gray, Duncannon). Favorable results were had by Dupesy, ten to twenty drops of adrenalin hourly, then every three hours, and finally three times a day. Kirch twenty drops every two hours or one ccm. of the 1:1000 subcutaneously. It often acts favorable in heart disease as a stimulus in decreased heart power, as well as in syncope, of chloroform narcosis or collapse post-operation per os, or subcutaneously in doses up to 1 mg.

The Interpretation of Medical Laboratory Findings.—(Jour. A.M.A., Jan. 26, 1907.)—It is unfortunate that all practitioners of medicine have not had a laboratory training, for the lack of it tends to make them put an erroneous valuation on the findings of the microscopist. Under ideal circumstances every practitioner would be able to make his own laboratory tests, but lack of the necessary training, or want of time, often render this impossible. Every physician who avails himself of laboratory tests should be able, however, to interpret the findings. The point on which many practitioners go astray is the significance of negative reports. While the presence of tubercle bacilli means tuberculosis, and of diphtheria bacilli means diphtheria, many physicians do not fully realize that the absence of these organisms does not exclude these diseases, especially if the failure results after a single examination. A case in point is recorded by Knauer in which a physician assured a patient that he did not have syphilis after the negative examination of a suspicious sore for the spirocheta pallida. Clinically, the sore strongly suggested an initial lesion, and the patient was naturally surprised and grieved when he developed secondary symptoms. Too much stress cannot be laid on the fact that laboratory findings must be correlated with clinical findings and that negative findings in diseases of bacterial origin do not exclude the disease suspected.

THE SPIRIT OF THE MEDICAL PRESS.

WHAT SOME OF THE MEDICAL EDITORS ARE SAYING.

Physicians, Pharmacists and Proprietaries.—(St. Louis Med. Review, Jan. 26, 1907.)—A few general considerations that forced themselves upon us while listening to the recent joint debate of pharmacists and physicians at the St. Louis Medical Society, on the Relations of Medicine and Pharmacy, may be worth presenting. In the first place, notwithstanding the present outcry about commercialism in medicine, more than one speaker gave expression to the apparently welcome sentiment, that the fact that the prescriptions by physicians of proprietaries took thousands of dollars out of their own pockets, was a legitimate argument against proprietorship in remedies. If that is not flat commercialism in medicine we confess our inability to understand what is. It is, to our mind, an argument entirely unworthy of the medical profession. If the actual merits of the valid professional arguments that can be adduced against the use of remedies whose composition is kept secret, or which contain habit-forming or dangerous drugs, do not weigh sufficiently with physicians to arouse in them a sense of duty and conscience as to what remedies they may best prescribe in the interests of their particular patients and of the community, it is better to let the subject drop then and there, rather than to appeal to them on a ground which displays them as amenable only to those very motives of commercial selfishness that they so roundly denounce on the part of the manufacturers. We shall never gain that confidence of the public in the disinterestedness of the profession, which is necessary to the grateful acceptance of its aid in placing at the public service its expert knowledge regarding broad principles affecting the welfare of the race, while we proclaim in the same breath that we are largely interested, not so much in preventing the public money from being uselessly and fraudulently drawn into the pockets of the unscrupulous among pharmaceutical manufacturers, as in diverting it into our own. We doubt if the medical profession ever had greater opportunities within its grasp, than in the present age, for proving itself the "guide, philosopher, and friend" of the human race; but if we do our part towards guiding it to a higher evolution in the light of present knowledge, there must be no possible room afforded for misgiving as to whether it is the public good, and not rather our own selfish class interests, or which we are so solicitous. In sanitation, in personal hygiene, in racial improvement, even in the most profitable conduct of the industrial, as of the militant, warfare of the nation, we claim and rightly so, to be able to help on toward the ultimate success of the whole at the least possible sacrifice of life and well being. Let us, then, not stultify our efforts by creating unnecessary distrust of our motives at the outset. (We regret that may not reproduce the editorial in its entirety.—Ed.)

The Value of Cocain Substitutes.—(Med. Record, Jan. 26, 1907.)—One of the leading fields of pharmaceutical endeavor seems to include the production of remedial agents which shall serve as substitutes for the drugs from which they are derived because the latter possess, or are assumed to possess, various toxic properties. The whole gamut of well-known drugs has been subjected to this so-called purifying process, and in most instances, it must be said, without any signal success which might give an excuse for abandoning the original remedy. Not long after cocaine became recognized as one of the most valuable drugs in ophthalmic practice, efforts were made to overcome its toxic properties and other objectionable features, among which were the production of midriasis and paralysis of accommodation, its effect on the intraocular pressure, and the difficulty of obtaining perfectly sterile solutions. A series of derivatives was the result, for each of which perfection was claimed as the ideal local anesthetic. That claims of this kind will not always bear the test of actual practical application is shown in a recent article by Wintersteiner (Wiener klinische Wochenschrift, 1906 No. 45), who comes to the defense of cocaine, as regards its employment in ophthalmic practice particularly, and demonstrates that the supposed disadvantages are largely overestimated. It is admitted that cocaine may exert an injurious effect on the epithelium of the cornea, and when there is a tendency to glaucoma it may also cause unfavorable symptoms. But aside from this there is very little in the character of the substitutes which would satisfactorily balance these shortcomings. As the result of prolonged observation and experiment, Winterstiener concludes that although each of the numerous derivatives of cocaine may have its advantages, these are not of sufficient moment to cause an abandonment of the original drug. Their acknowledged inferiority in many respects seems to be indicated by the fact that is sometimes necessary to combine them with cocaine itself in order to obtain the desired effect.

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CLINICAL THERAPEUTICS

A forum of original experience, to which scientific contributions are invited. Responsibility for views promulgated limited to author.

Heroin.—A. Crha describes the action of heroin. Heroin is especially beneficial in the treatment of phthisis. A dose of .003 gram given at night to patients kept awake by cough, ensures ease for from four to eight hours, and the cough next day is found to be looser than before. In advanced cases the subjective symptoms of distressed breathing and pressure on the chest are relieved as effectually as by morphine, and in some cases the breathing becomes slower and inspiration more prolonged. No effect is produced on night sweats. In laryngeal tuberculosis the drug is of great benefit. The troublesome cough disappears after its prolonged use. In one case where the pain in swallowing was such that cocaine had to be applied several times a day applications twice a day of a 1 in 30 solution of heroin afforded relief. In hemoptysis heroin replaces morphine, and in no case causes the vomiting which is so frequent after morphine. The drug has no harmful effect on the alimentary tract, and, indeed, the dyspepsia of phthisical patients has often improved rapidly when heroin was given for the cough. Crha has employed heroin in acute and chronic bronchitis, and has found it a good substitute for the usual narcotics. It diminishes the cough and lessens the pain on breathing. The distressed breathing of emphysematous patients when dependent on heart disease is relieved even before rest and heart stimulants have had time to act. In one case of cardiac asthma the customary nightly attack was prevented by a dose of 0.005 gram of heroin. There is no effect on the heart's rhythm. As an analgesic heroin is not of much benefit except in diseases of the genital organs. Thus tampons steeped in glycerinated solution of heroin (1.5 in 1000) quickly relieve the pain of an early perimetritis. They have less effect in chronic perimetritis. As a hypnotic heroin has no direct action. It may be injected instead of morphine before giving ether as a general anesthetic. It will then lessen the stage of excitement, hasten the narcosis, and prevent post-narcotic vomiting. A great advantage which heroin possesses over earlier narcotics is that only small doses are needed. Six to eight drops of a 1 per cent solution of heroin operate as effectually, as 15 drops of 2 per cent codeine, and 3 to 5 mg. of heroin as 0.01 gram morphine. Moreover, it is only after long use that the dose of heroin needs to be increased to any appreciable extent. Heroin can be safely given to old people when morphine would be dangerous from its effect on the heart.—British Medical Journal.

THE 1907 ANTIKAMNIA CALENDAR.—For some years past the Antikamnia Company have made their calendar one of the more attractive souvenirs of the year's beginning for which we find ourselves indebted to our friends. The calendar for 1907 is quite as artistic and serviceable as have been those which have gone before it, and we have great pleasure in its possession. We understand that these calendars have been sent to the profession generally, and there is consequently no need in giving to our readers a description of this picture, by Miss Magnus, entitled "The Convalescent."

In children, in cases of peritonitis of unknown origin, examine for gonorrheal vulvovaginitis.

HAVE the tracheotomy instruments handy before operating upon a case of angina Ludovici.